

BARNEYS CANYON MINE
WASTE ROCK MANAGEMENT PLAN

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1. ACID GENERATION POTENTIAL

The acid generation potential from the Barneys Canyon Mine waste dumps has already been reviewed by our consultant, Dr. Andrew Robertson of Steffen, Robertson & Kirsten in a report which was submitted to DWQ on January 28, 1993.

His report concluded that the potential for acid generation in well blended rock piles is very small. Subsequent analysis of the Melco and SBCS waste materials has again confirmed the low potential for acid generation as stated in the consultants reports dated March 18, 1993 (SBCS) and April 15, 1993 (Melco) which are included here for reference.

Since these reports were compiled it has been identified that some of the sulfur reporting as sulfide in the Melco samples occurs as Barite (BaSO_4) which is insoluble and non acid generating. This means that the potential for acid generation at Melco has been overstated and so evaluations are continuing to try and correctly compensate for the effect of the barite. It is expected that the ratio of neutralizing to acid generating material will favorably increase.

Petrographic studies have also determined that a significant portion of the sulfate material identified at the SBCS deposit occurs as a natural jarosite which is a relatively insoluble and unreactive sulfate species. Investigations are continuing to quantify the favorable impact of these data on the acid sulfate mobilization potential.

In any event the acid potential quoted in both the Melco and SBCS evaluation is considered to be conservatively high and thus the risk of acid generation can be considered extremely low.